

3. ON *PHYSALUS SIBBALDII*, GRAY.
BY W. H. FLOWER, F.R.S., ETC.

This species of Fin-Whale was founded by Dr. Gray (Proc. Zool. Soc. 1847, p. 92) upon a skeleton preserved in the Museum of the Literary and Philosophical Society of Hull, which up to the present time has remained the only known representative of the species. Passing through Hull a few days since, I availed myself of the opportunity of examining the skeleton, not perhaps with sufficient minuteness to be able to give a detailed description of its osteological characters, but closely enough to satisfy myself upon two important points,—first, that it is quite distinct from the Common Fin-Whale (*P. antiquorum*, Gray); secondly, that it agrees very closely with the specimen recently acquired by the Trustees of the British Museum, from the collection of the late Professor Lidth de Jeude, of Utrecht, to which I have given the name of *P. latirostris* (Proc. Zool. Soc. 1864, p. 410). The two specimens certainly belong either to the same species, or to two nearly related species forming a distinct section of the genus. As the former supposition is probably the correct one, I lose no time in withdrawing the specific name of *latirostris* in favour of the prior one given by Dr. Gray.

I will now give a sketch of the principal characters of the two skeletons, showing where they agree with each other, and differ from *P. antiquorum*.

1. *Size*.—The Hull and the Utrecht skeletons are at nearly the same stage of growth; the epiphyses are disunited in almost all the vertebræ, as well as on both ends of the humerus, radius, and ulna. In the Hull specimen the ossification of the transverse process of the second cervical vertebra has proceeded so far as to surround the vertebral foramen; in the Utrecht skeleton the foramen is still open, though only by a narrow fissure on one side. I should judge from this that the former is rather the older of the two. In both, the transverse processes of all the remaining cervical vertebræ are incompletely ossified, and not united at their ends by bone. In general size and proportions the two specimens very nearly correspond, the advantage being in favour of the Hull one, which is stated to have a total length of 47 feet, the cranium being 10' 6"; while the Utrecht specimen is about 43 or 44 feet long, the skull being 9' 10". Either example when full-grown would probably be not far short of 60 feet, or somewhat less than the average size of the common species.

2. *Number and Characters of the Vertebræ*.—The two skeletons agree in possessing sixty-four vertebræ, both being in this respect, fortunately, complete. In *P. antiquorum* the number never appears to exceed sixty-two. In the Hull skeleton the foramen in the transverse process of the axis is very small, and nearly circular, about 2" in diameter; in the Utrecht specimen it is more oval, $3\frac{1}{4}$ " high, and $4\frac{1}{4}$ " long. This difference in so variable a part is probably only individual. The four following vertebræ have in both a converging upper and lower process, which are, as said before, incomplete and ununited. In the Hull specimen the seventh has a

short but distinct inferior process, which in that at Utrecht is represented by a mere tubercle. In the terminal caudal vertebræ there is a great similarity: the last is very small, short, and disk-like; the second from the end is of similar form, but somewhat larger; the third presents a sudden increase of size in every direction, so marked that, if it did not occur in both skeletons, one might easily suppose that a bone had been lost from this region.

3. *Skull*.—The principal peculiarity of the skull, which I pointed out in the Utrecht specimen, was the breadth of the rostral portion; this is repeated, though to not quite the same extent, in the Hull skeleton. The breadth across the middle of the beak of the former is to the length of the skull as 27 to 100, in the latter as 26 to 100. In six specimens of *P. antiquorum* it varies between 18 and 21 to 100. The actual breadth (measured across the upper surface following the curve) in the Hull specimen is 33", each maxillary being 10" and the premaxillary 5", the space between the latter 3". The nasal bones agree together, and differ from *P. antiquorum* in being but slightly hollowed on their upper surface and anterior margins. This character is most strongly marked in the Hull specimen.

4. The *stylo-hyals* are thicker, especially near the lower end, in both the Utrecht and Hull skeletons than in the common Fin-Whale.

5. The *sternum*, which is so remarkable in the Utrecht specimen for its almost rudimentary state, is, unfortunately, wanting in the Hull skeleton; but even this absence may not be without significance, for if it had been a large, well-developed bone, it is most unlikely that it should have been lost in a skeleton prepared with such care as to be in every other respect perfect.

6. *Ribs*.—In the Utrecht skeleton (not articulated) I counted but fifteen pairs; while in that at Hull there are sixteen, the last well developed—as long, in fact, as those which precede it. If one could be certain that one pair had not been lost in the former case, this difference might be of some importance; but in different specimens of *P. antiquorum* the last rib is in some completely developed, and in others represented by a mere splint of bone totally unconnected with the vertebral column, and therefore easily overlooked in preparing the skeleton. If sixteen is the normal number of the pairs of ribs in *P. sibbaldii*, this makes a good specific distinction from *P. antiquorum*, which has never been known to have more than fifteen. The first rib agrees in both specimens, and differs from *P. antiquorum* in wanting a well-developed capitular process. In the Utrecht specimen this process is present in the second, third, and fourth ribs—longest in the third. In the Hull skeleton it is found from the second to the sixth, being longest in the third and fourth. In *P. antiquorum* it is usually longest in the second, and obsolete in the fourth.

7. The *phalanges* of the digits of both skeletons are articulated artificially, and yet they correspond exactly in number and arrangement, except that the Hull specimen has an additional bone on digit III. The numbers are—II. 4; III. 5 (Utrecht), 6 (Hull); IV. 5; V. 3,—an arrangement differing somewhat from that of *P.*

antiquorum. But one of the most striking and characteristic differences in this part of the skeleton is the greater length of the metacarpal bones and phalanges, which in both the Hull and Utrecht specimens, not only relatively but even actually, exceed those of the full-grown *P. antiquorum*, 70 feet in length.

8. Lastly, the *baleen*. This is not preserved in the Utrecht specimen; but in the Hull skeleton it is in excellent condition, and shows a striking difference from that of the common species in being of a uniform deep black, instead of dark olive-brown or horn-colour, variegated towards the ends of the series with patches and stripes of a lighter colour.

4. DESCRIPTIONS OF NEW BIRDS FROM THE MALAY ARCHIPELAGO. BY ALFRED R. WALLACE, F.Z.S.

(Plates XXVIII., XXIX.)

I have here given the characters of twenty-one species of birds which appear to be new, and which, together with those already described by Mr. G. R. Gray and myself in the 'Proceedings' of this Society, and also a few described by Mr. Gould and Dr. Sclater, make up the number of 212 new species collected by me in the islands of the Malay archipelago. Of those now described, eight are from Celebes, and the rest from Sumatra, Borneo, the Moluccas, and the New Guinea group.

ACCIPITER ÆQUATORIALIS.

Supra cinereo-plumbeus, subtus cum torque humerali rufo-castaneus; capitis lateribus cinereis, gula pallide rufo-cinerea, caudalisque immaculatis.

Above slaty ash-colour; beneath light chocolate-brown, which extends in a broad collar between the shoulders; sides of the head ash-colour; throat light ashy, tinged with rufous; wing and tail uniform light ash-colour beneath; under wing- and tail-coverts scarcely paler than the belly; bill and claws black; cere, eyelids, and legs orange-yellow; iris golden orange-yellow.

♂. Total length $14\frac{1}{2}$ inches; wing $7\frac{3}{4}$; tail 6; tarsus 2; bill, to gape, $\frac{1}{1}\frac{1}{2}$.

♀. Total length $16\frac{1}{2}$ inches; wing 9; tail $7\frac{1}{2}$; tarsus $2\frac{5}{8}$; bill, to gape, $1\frac{2}{1}\frac{2}{2}$.

Hab. Batchian, Gilolo, Morty Islands, Waigiou, and Salwatty.

Remarks.—This species was pointed out to me by Mr. Gurney as being near *A. rufitorques*, Peale, which inhabits the Feejee Islands. It differs from that species in its rather larger size, different proportions, and coloration. It is also near *A. griseogularis*, G. R. G., which inhabits the same district; but differs from that species by its much smaller size, and in the entire absence of bands on the body, wings, or tail in the adult birds. Both these seem to be included